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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,480	05/15/2001	Ronald Earl Highsmith	H0001323	9623

7590

10/02/2002

Honeywell International Inc.  
15801 Woods Edge Road  
Colonial Heights, VA 23834

EXAMINER

BARRY, CHESTER T

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 10/02/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/855,480

Applicant(s)

HIGHSMITH, RONALD EARL

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 20-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-19, drawn to a composition, classified in class 71, subclass 6+.
- II. Claims 20-29, drawn to a method of making a sludge solids composition, classified in class 210, subclass 601+.

5 The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by  
10 another and materially different process.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

15 A telephone call was made to Melanie Brown on 9/23/02 to request an oral election to the above restriction requirement. Group I was elected with traverse.

Applicant is advised that the reply to this requirement to be complete must confirm the election noted above.

20 Fig 1 is objected to for want of "Prior Art" to appear on the figure. The drawing is objected to further on the grounds that the portion thereof entitled, "Typical Sludge Drying/pelletization (Granulation) Process" should be denoted as a separate figure. It is suggested that Fig. 1 (top) be labeled "Fig. 1A Prior Art" and that Fig. 1 (bottom) be labeled "Fig. 1B Prior Art." Further, amendment of the text and Brief Description  
25 of the Drawings of the application to refer to the lower portion as Fig. 1B would be required.

Fig. 1 is objected to for the blocks labeled "Anaerobic Digestion," "Sludge Dewatering," and "Sludge Disposal" to proceed from right-to-left rather than from left-to-right. Similarly, at the lower portion thereof, Fig. 1 is objected to for the process blocks to proceed from right-to-left rather than from left-to-right. Fig. 2 is objected to for the process blocks to proceed from right-to-left rather than from left-to-right. In our predominately left-to-right reading culture, presentation of processing blocks in the same order facilitates rapid and efficient comprehension of the diagrams not just during  
30 examination of this application, but also during subsequent review thereof by countless others during pre-searching of other's inventions, infringement clearance searches, and searching of others' applications, should this application ultimately issue as a patent. If the examiner's suggestion is adopted, be sure to reverse the direction of the recycle stream accordingly. Uniformly adopted voluntarily not were convention this if disclosure  
35 patent a comprehend to difficult more be would certainly it.

Fig 2 is objected to for appearance of "A preferred method of the invention" on the drawing. Its presence suggests that the other drawings are merely less preferred embodiments. In fact, they are prior art.

5 Fig. 1 (top) is objected to on the merits: In the prior art method, doesn't the "secondary sludge" depart from the "Clarifier" (the one immediately downstream of the "Biological Treatment" step) rather than from the "Biological Treatment" vessel? If a stream were taken off from the "Biological Treatment," would it not more appropriately be referred to a "mixed liquor" rather than "secondary sludge"? Further consideration of  
10 this point is requested. See for example USP 6444124 to Onyeche for "System and method for improved treatment of wastewater." If that prior art figure were amended to show the secondary sludge stream coming off the "clarifier," such alternation would not be viewed as new matter.

15 Claims 1 – 19 are rejected under 35 U.S.C. Sec. 112, 2nd parag., for failing to particularly point out and distinctly claim the subject matter for which patent protection is sought. Claims 1 and 12 each recited a composition of "increased" nitrogen and phosphorus content and "increased" economic value. Increased relative to what? Further, it is not clear if "beneficiated" adds any limitations not otherwise present in the  
20 claims, and if so, what the nature of that additional limitations is. Suppose a person were to make, use, sell, or offer for sale a sludge solids composition comprising digested sewage sludge, ammonium sulfate, mineral acid, and phosphate salt. Would that person infringe claim 1, for example, if claim 1 were to issue as a patent? I'd say that person would not be on fair notice of the proscribed composition for want of  
25 reasonable precision as to the nature of limitations explicit or implied through "beneficiated" and/or "increased." Correction is required.

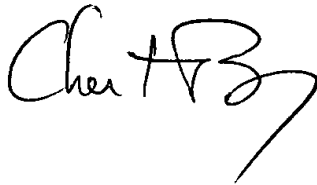
Claim 1 requires a digested municipal sludge, ammonium sulfate, a mineral acid, and a phosphate salt. USP 5275733 to Burnham describes a composition comprising  
30 digested municipal sludge ("wastewater sludges . . . processed to a PSRP level. . . [PFRP]" col 7 line 16)(taken in view of reference's earlier description of 7 – 9 such PFRP, including thermophilic aerobic digestion at col 3 line 48, or anaerobic digestion at col 3 line 3), ammonium sulfate (col 8 line 5), a mineral acid (e.g., phosphoric acid at col 8 line 14), and a phosphate salt.

35 Accordingly, Burnham anticipates claim 1. Claims 1, 5, 6 are rejected under 35 U.S.C. Sec. 102(b) over Burnham '733. The relative proportion of a materials in a composition is a known result effective variable, so variation thereof would have been obvious. Accordingly, claims 2 – 4, 7 – 10 would have been obvious under 35 U.S.C.  
40 Sec. 103(a) over Burnham. Claims 11 – 19 are rejected under 35 U.S.C. §103(a) over Burnham in view of Moore '831. Per claim 11, Moore suggest granulation and drying of the product. Per claims 12 – 19, Moore suggest use of superphosphoric acid as the phosphorus source.

5 EP 0143392 describes adding hygroscopic ammonium sulphate (claim 1) to a digested sludge (pages 2 – 3) and acidifying the same. Moore suggests acidification with superphosphoric acid. Burnham suggests the same with phosphoric acid. Moore teaches the fertilizer material having a phosphate component, so addition of phosphate would have been obvious. The relative proportion of individual compounds is a known result effective variable, so variation thereof would have been obvious. Claims 1 – 19 are therefore obvious under 35 U.S.C. Sec. 103(a) over EP '392, Moore '831 and Burnham.

10 Claims 1 – 19 are rejected under 35 U.S.C. Sec. 103(a) as obvious over JP 58032638 in view of Moore '831 and any of the various references of record which teaches "ammonium sulfate" as a hygroscopic medium desirable for formulation in fertilizer pellets or granules. Moore '871 suggests substitution of superphosphoric acid  
15 for phosphoric acid.

CHESTERT. BARRY  
PRIMARY EXAMINER



703-306-5921

9/29/02